104-01-Information Technology Initiatives

Fund: 104, Information Technology	
Total Expenditures	**$14,835,000**
Revenue:	
General Fund Support	$13,395,000
Bond Revenue	$0
Other Revenue	$1,440,000
Total Revenue	**$14,835,000**

▶ Summary of Program

Fund 104, Information Technology, was established in FY 1995 to strengthen centralized management of available resources by consolidating major Information Technology (IT) projects in one fund. Based on the 1994 Information Technology Advisory Group (ITAG) study, this fund was created to account for spending by project and is managed centrally by the Department of Information Technology. Historically, the E-911 Emergency Telephone Service Fee, a General Fund transfer, the State Technology Trust Fund, and interest earnings are sources for investment in Information Technology projects. However, in FY 2001, the E-911 Emergency Telephone Service Fee revenue and related project expenses were moved to Fund 120, E-911 to satisfy a State legislative requirement that E-911 revenues and expenditures be accounted for separately.

The County's technological improvement strategy has two key elements. The first element is to provide an adequate infrastructure of basic technology for agencies to use in making quality operational improvements. The second is to redesign existing business processes with technology to achieve large-scale improvements in service quality and achieve administrative efficiencies. The County's long-term commitment to provide quality customer service through the effective use of technology is manifested in service enhancements, expedited response to citizen inquiries, improved operational efficiencies, better information for management decisions, and increased performance capabilities.

Annual funding supports a variety of agency sponsored projects. Some projects require multiple years and phases for completion, others are smaller in scale and can be completed within a fiscal year. The mix of projects funded each year varies; therefore the remainder of the CAPS remarks will focus on funding and approved projects for FY 2002.

In FY 2002, funding of $14.83 million is included for initiatives that meet the priorities established by the IT Senior Steering Committee, comprised of the County Executive and senior County managers. These initiatives include a mix of projects that provide benefits for both citizens and employees and that adequately balance new and continuing initiatives with the need for maintaining and strengthening the County's technology infrastructure. Funded projects will support initiatives in the Human Services, Planning and Development, General County Services, Public Safety and Court Services program areas.

The five information technology priorities established by the IT Senior Steering Committee are as follows:

Priority	FY 2002 Adopted Funding
Projects Providing Convenient Access to Information and Services	$3.88 million
Projects Providing a High Level of Responsiveness to Customer Requirements	$2.75 million
Management of County Information Assets	$3.16 million
Management of County Technology Assets	$4.37 million
Management of County Human Resource Assets	$0.67 million
TOTAL	$14.83 million

Convenient Access to Information and Services

Ultimately, providing citizens, the business community, and County employees with timely, convenient access to appropriate information and services is one of the most important uses of information technology. There are several projects funded in FY 2002 that provide for additional means of accessing County information and for interacting with County agencies. Many of the projects either expand on existing methods of accessing information or begin new initiatives to provide the ability to access a different set of information and services.

To complete prior year investments, funding of $2.30 million is included in the Circuit Court's Land Records Automation Systems (LRAS) to allow for the final lease purchase payment for system equipment, completion of system enhancements, data storage expansion, and software licenses, maintenance and upgrades to an existing imaging system that provides public access to Circuit Court Land Records documents related to real estate transactions in Fairfax County. In addition, funding of $0.44 million in Technology Trust Fund revenue is appropriated to this project for hardware, software, and design services for Phase II of the e-commerce initiative which incorporates electronic recordation and processing of land record documents into the existing imaging system. Capabilities of the completed system will include providing attorneys, title examiners, and other County and State agencies 24 hour, 7 day a week remote electronic access to court documents related to real estate transactions from 1742 to present and enabling them to perform functions such as title searches and electronic recordation and processing of all Land Records document types, such as deeds, deeds of trusts, and certificates of satisfaction.

To enhance and expedite citizen access to County resources, $0.10 million is included in the Tactical Initiatives Project to web-enable a system in the Department of Cable Communications and Consumer Services, Consumer Services Division allowing citizens to initiate complaints and access complaint histories of businesses. In addition, $0.09 million will support the Fairfax County Park Authority (FCPA) and the Department of Community and Recreation Services (DCRS) in the development of a web-based application to register on-line for ParkTakes classes. This will expand the current program registration options of mail, phone operator, Interactive Voice Response (IVR) or in-person to the internet. The application will provide citizens a more timely, convenient and efficient means of conducting business with the agencies, as well as provide comprehensive, automated information about programs and program availability.

Another avenue for access to information is through the County's web site. Since its launch in 1996, the County's web site has become a key component in the way the County does business. The site has been repeatedly recognized by local, state, national, and international authorities as a model for e-government and public access. But more importantly, the site has been

recognized by the constituents of Fairfax County as a vital means of finding information and communicating with their local government.

Funding of $0.85 million has been included in FY 2002 to continue development and maintenance of the County's Internet and Intranet initiatives. The funding will support hardware, software, and training needs and provides a funding pool for emerging technology projects not funded elsewhere. This project also provides the basic operating funds to keep the County's Internet web site and Intranet online 24 hours per day, 7 days per week, 365 days per year.

With the new courthouse expansion, the County is planning to utilize technology more fully in courtroom proceedings and has funded $0.10 million to establish a pilot program to evaluate courtroom technologies. Evaluation will include such items as the benefits to courtroom proceedings, hardware and software requirements for specific technologies and the funding required to acquire and maintain the technologies in the Judicial Center expansion and the retrofit of existing courtrooms.

Projects Providing a High Level of Responsiveness to Customers

Several projects use collaborative tools and approaches to formulate business solutions that address customer needs. FY 2002 funding includes $0.22 million to provide the County with web-based Graphical User Interface (GUI) software to use in conjunction with County corporate information systems operating in the CICS environment, such as FAMIS, CASPS, and BPREP. The software will web-enable the corporate "green screens", allow the use of "point-and-click" technology, facilitate the design of consolidated and/or linked screens to streamline commonly used processes, and make screens more user friendly and improve efficiency for all users. In addition, the project will provide the tools to extend appropriate portions of the County's purchasing and financial systems to external customers, the vendor community, and create 24 hours per day, 7 days per week, 365 days per year "self service" opportunities.

Being open to changing business practices also affords the County the ability to meet customer requirements if current processes do not accommodate existing needs. One example is the digital signature program initiative with the Commonwealth of Virginia. Funding of $0.08 million is included in FY 2002 to provide the capability to use authenticated electronic submissions rather than relying on hard-copy systems to enhance communications between the County and the Commonwealth. Examples of documents that could be electronically submitted include County requests to the Commonwealth for access to State computer systems and Human Services documents submitted to the State to comply with reporting requirements. A key component of the program is Digital Certificates which will be issued by the Commonwealth and used to authenticate individuals electronically signing forms, applications, letters, etc. The use of this technology will permit actions to be accomplished quicker on behalf of citizens, businesses and the County.

Another initiative being pursued in FY 2002 is the replacement of the Inspection Services Information System (ISIS) in the Department of Public Works and Environmental Services and the Complaints Tracking Management System used by the Department of Planning and Zoning. This is a collaborative effort to determine a business solution that will replace both systems with the same technology platform. The ISIS portion of the project will meet the demands of customers to make the permitting process simpler to understand, more convenient to use, more efficient and more predictable by creating a one-stop shop consisting of multiple review agencies. In addition, the application will have an e-permitting component, laying the foundation for future e-government solutions in land development. The replacement of the Complaints Tracking Management System will allow the agency to continue to manage zoning enforcement caseloads with greater accuracy and reporting capability and increase the flow of

information to other agencies, thereby improving the County's responsiveness to citizen complaints. Funding of $2.45 million has been included for this combined effort.

Management of Information Assets

Focusing on internal business practices is a key element to effectively managing the County's information assets. A number of projects have been identified in FY 2002 that create, share or reuse a repository of common information objects such as databases and records, that provide for data standardization and that streamline processes to capture data only once.

Funding is included in the Human Services project to enhance and tailor the functionality of two existing systems, Harmony and Intake Services. Harmony is the Human Services contract management system that replaced the Virginia Uniform Welfare Reporting System (VUWRS), a 26-year-old payment system for client services in FY 2001. FY 2002 funding of $0.35 million is included to develop a case management module for adult and aging services, allowing staff to use one primary system rather than multiple ones, and implement enhancements and requirements identified by all of the participating user agencies to streamline processes. Intake Services, a part of the ASSIST application, will also be modified to more efficiently support service delivery in the call center environment with a redesign of both screen flow and the interface with ASSIST. Funding of $0.10 million is included for this initiative.

Funding is also provided for the Geographic Information System (GIS) project which provides County agencies and citizens a means to electronically access, analyze and display land related data. Funding of $0.39 million will continue to update the aerial imagery and orthophotography (spatially corrected aerial imagery) data for the 399 square miles of the County and to initiate a Master Address System, one centralized, standardized database containing all site addresses for the County to be used by all County agencies. The imagery update will cover about a quarter of the land within the County and also update specific areas as required by ongoing countywide projects. The Master Address System will ensure reliable data, eliminate the need for each agency to maintain their own address lists, and provide more timely service delivery.

Other FY 2002 funded projects aimed at managing information have imaging applicability. Both the Juvenile and Domestic Relations District Court (JDRC) and the Office of the Sheriff sponsored projects will expand the County's existing program to acquire imaging software and necessary hardware with the goal of eliminating the hardcopy of documents where possible, and making retrieval of imaged documents easier. Currently all JDRC case records and Sheriff inmate records are in paper form. Funding of $0.40 million will allow JDRC to convert all new and many existing case documents to electronic format and will allow inmate records to be imaged and accessed agency wide simultaneously.

As part of the maintenance of technology infrastructure and the management of data, funding of $0.74 million is included to provide for the replacement of countywide existing applications that have become obsolete. Two Integrated Database Management System (IDMS) based systems are scheduled to be replaced including the Loan Processing System, used by the Department of Housing and Community Development to compile and report information associated with the home loan program and the On Line Query (OLQ) reporting tool used by the FAMIS and CASPS applications. In addition, the older and ineffective Vehicle Management System in the Department of Vehicle Services will be replaced with a COTS, web-enabled solution providing one application to capture part numbers, repair causes, warranty data, fuel usage, equipment history, labor charges. The new system will also have an on-line parts cataloging system and reporting capabilities.

As a continuation to funding received last year, FY 2002 funding of $0.15 million is included for Phase II of the Fire Department's incident reporting and training system. Phase II will update the manual process of physically transporting data by tape from the Public Safety Communications Center to the County's Department of Information Technology technical facility for processing and storage with an interface to the Computer Aided Dispatch (CAD) system. The CAD system is used to dispatch equipment and personnel to events and emergencies and provide up-to-date incident information.

Funding of $0.43 million is included to replace multiple databases in the Fire Department with a web-enabled system that will be integrated with the DPWES ISIS system to capture fire prevention activities including fire prevention code permits, invoices, plan review, systems testing, and inspections. As a module of the replaced ISIS system, the application will be compatible with all other modules and will allow customers to schedule inspections and obtain information via the Internet.

Another information system that is being enhanced in FY 2002 is SYNAPS, the Fairfax-Falls Church Community Services Board (CSB) application developed to improve client tracking and client and third party billing, in addition to providing improved client demographic and staff productivity data. Funding of $0.60 million is included for the development of the Assessment and Treatment Plan (ATP) module to allow staff to create on-line clinical assessment and treatment plans. With the addition of the ATP module, the opportunity to modify SYNAPS to ensure its compliance with the Health Insurance Portability and Accountability Act (HIPAA) of 1996 is available. HIPAA requires compliance with security standards designed to protect the confidentiality and integrity of health information and the information technology used to store, process and transmit it. These system modifications will also be accomplished in FY 2002.

Management of County Technology Assets

FY 2002 funding has been provided to support necessary infrastructure improvements sponsored by the Department of Information Technology to promote greater information system efficiencies. An amount of $1.67 million has been included to implement Windows 2000 Server as the County's standard operating system for the enterprise LAN server infrastructure, requiring the replacement of existing servers and the purchase of new licenses. The identification and implementation of a consistent server platform will eliminate existing incompatibilities among server operating systems which hinder application deployments and complicate access to network resources. Simplified routine administrative functions, flexible storage features, remote access, enhanced reliability and availability, as well as preventing users from changing desktop settings are all attributes of the new system. This standardization will reduce staff time on support calls and maintenance and simplify the management of server resources.

To ensure that the County network infrastructure will meet future systems needs, funding of $1.61 million has been included for the Enterprise Technology Center (ETC), which includes all activities accomplished in the computer room, as well as supporting hardware and software on all platforms. This funding will provide for modernization initiatives that will ensure and protect the County's investment in technology infrastructure by centralizing managing storage requirements, and automating monitoring functions that will eliminate labor-intensive and error-prone interaction with the computer system.

Also included in FY 2002 is funding of $0.15 million for agency LAN servers requiring replacement in order to remain consistent with current technology. Funding for servers will be considered, where justified, by agency-specific needs, and will be based upon funding availability. Wherever practical, replacement of small, single-agency servers with larger, cost-effective multi-agency servers will be given strong consideration.

Another project funded in FY 2002 will phase in the upgrade of the Public Service Radio System, which provides two-way radio communications for all non-public safety agencies within the County. The current technology is over 20 years old and only permits coverage for about 80 percent of the County. The initial phase includes $0.94 million to upgrade the current radio infrastructure, with the replacement of the radios anticipated to addressed in FY 2003.

Management of Human Resources

Effectively managing the County's people assets will lead to a high performing organization. Maintaining high technical competence and maximizing productivity through strategic initiatives are two methods for accomplishing this. Two projects are funded in FY 2002 which invest in employee and organizational development. Funding of $0.40 million has been included to provide for information technology training in recognition of the challenges associated with maintaining skills at the pace of technological changes and to ensure that the rate of change in information technology does not out-pace the County's ability to maintain proficiency. As the County's workforce becomes increasingly dependent on information technology, training support has become more essential.

Funding of $0.27 million is included to expand the telecommuting option to a larger number of County employees. Currently approximately 6 percent of eligible employees telecommute. With the endorsement by the Board of Supervisors and County Executive, a regional goal of 20 percent is being sought. FY 2002 funding will provide training for supervisors and commuters to maximize the efficiency and productivity of telecommuting, as well as provide for the purchase of slots in regional telework centers, computer hardware to loan telecommuters as necessary, and security devices to allow authorized telecommuters access to the County computers.

Information regarding technology initiatives can also be found in the FY 2002 Information Technology Plan prepared by the Department of Information Technology.

▶ Funding Availability and Future Considerations

Funding is approved by the Board of Supervisors for recommended projects on an annual basis. The funding level varies from year to year and is dependent upon the mix of projects recommended. The source of funding for Fund 104 includes General Fund support, Technology Trust Fund Revenue, and interest income.

▶ Funding Methodology

The following ten strategic directions are fundamental principles upon which Fairfax County bases its Information Technology (IT) decisions. They are intended to serve as guidelines to assist County managers apply information technology to achieve business goals.

1. Provide citizens, the business community, and County workers with timely, convenient access to appropriate information and services through the use of technology.

2. Have business needs drive information technology solutions. Strategic partnerships will be established between the customer and County so that the benefits of IT are leveraged to maximize the productivity of County employees and improve customer service.

3. Evaluate business processes for redesign opportunities before automating them. Use new technologies to make new business methods a reality. Exploit functional commonality across organizational boundaries.

4. Manage Information Technology as an investment.

   Annually allocate funds sufficient to cover depreciation to replace systems and equipment before life cycles end. Address project and infrastructure requirements through a multiyear planning and funding strategy.

   Limit resources dedicated to "legacy systems" (hardware and software approaching the end of its useful life) to absolutely essential or mandated changes. Designate systems as "legacy" and schedule their replacement. This approach will help focus investments toward the future rather than the present or past.

   Invest in education and training to ensure the technical staffs in central IT and user agencies understand and can apply current and future technologies.

5. Implement contemporary, but proven, technologies. Stay abreast of emerging trends through an ongoing program of technology evaluation. New technologies will often be introduced through pilot projects where both the automation and its business benefits and costs can be evaluated prior to any full-scale adoption.

6. Ensure that hardware and software adhere to open (vendor-independent) standards and minimize proprietary solutions. This approach will promote flexibility, interoperability, and cost-effectiveness, as well as will mitigate the risk of dependence on individual vendors.

7. Manage the enterprise network as a fundamental building block of the County's IT architecture. The network will connect modern workstations and servers; will provide both internal and external connectivity; will be flexible, expandable, and maintainable; and will be fully integrated using open standards and capable of providing for the free movement of data, graphics, image, video, and voice.

8. Approach IT undertakings as a partnership between central management and agencies enabling centralized and distributed implementation. Combine the responsibility and knowledge of central management, and agency staff, as well as outside contract support within a consistent framework of County IT standards. Establish strategic cooperative arrangements with public and private enterprises to extend limited resources.

9. Emphasize the purchase and integration of top quality, off-the-shelf software (with minimal customization) to speed the delivery of new business applications. This will require redesigning some existing work processes to be compatible with off-the-shelf software packages. Utilize modern, efficient methods and laborsaving tools in a cooperative application development environment. A repository for common information objects (e.g., databases, files, records, methods, application inventories) will be created, shared, and re-used.

10. Capture data once in order to avoid cost, duplication of effort, and potential for error and share the data whenever possible. Establish and use common data and common databases to the fullest extent. A data administration function will be responsible for establishing and enforcing data policy, data sharing and access, data standardization, data quality, identification, and consistent use of key corporate identifiers.

In addition to the strategic principles, a review and analysis process was developed to balance technology needs with limited FY 2002 fiscal resources. Project review included identification of projects that provide opportunities for improvement, those that help sustain the performance and reliability of the County technology infrastructure, and those poised to take advantage of technological advancements. In addition, projects were reviewed from both a business and a technical perspective. On the business side, consideration included whether the implementation of the project would benefit citizens, the County or both. Benefits of the project were weighed against the cost of the project and several risk factors, including the risk of cost and scope escalation due to factors such as the type of technology chosen, organizational disruption, schedule viability, and the impact of delaying the project. On the technical side, factors examined included how closely the project matched, and its impact on, existing County IT infrastructure, and the technical uncertainty of the project as it pertained to the commercial availability of, and the organizational experience with, the proposed hardware, software, and support. In addition, consideration was given to the availability of human resources both in DIT and the sponsoring agency to staff the project.

▶ Status of Program

The program has been highly successful, accelerating the County's progress in automating many processes, and providing a modern and secure infrastructure to support the business applications. The projects have provided the underpinning for the County's ability to make its services more efficient and information more accurate and accessible to its citizens. Further, this fund establishes a means for the County to support a technology investment strategy, mange technology investments through centralized review, and fund projects that meet service requirements consequent to growth in public demand, and the changing environment. The program allows the County to keep its technology fresh and maintainable, implement standards and shared infrastructure, minimize the residual impact of obsolescence, and maximize utility—thus, improving its affordability. The County has been able to implement a standardized, best in breed infrastructure, bring technology to the desktop of over 9,600 employees, and speed the flow of information between County sites. It is considered 'best practice' and the model is sought after by other governments. This program has contributed tremendously to the County's reputation of excellence and quality in government, in the view of the technology savvy constituency and public and private sector leaders.

The projects in the Information Technology Program are in various stages of implementation. Many of the on-going projects in the portfolio are expected to complete during by the end of this fiscal year. Large, multi-million dollar projects typically require several years to go thorough the stages of life-cycle development and become fully operational. Most projects are governed by a steering committee of agency management, stakeholders, and IT management.